

RECEIVED
CENTRAL FAX CENTER
MAY 08 2007

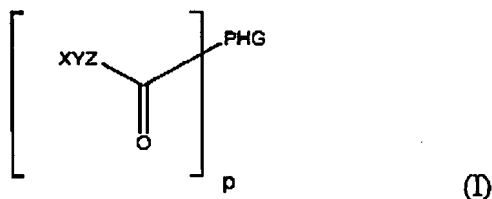
Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claims 1-60 (cancelled)

61. (previously presented) A lipid compound of formula (I):



wherein

PHG is a polar head group derived from a phospholipid, a lysophospholipid, a ceramide, a monoacylglycerol, a diacylglycerol, a triacylglycerol, or -W-Linker-HG;

p is from 1 to 3;

X is independently selected from C₆-C₂₄ alkenyl containing one or more double bonds and optionally one or more triple bonds, C₆-C₂₄ alkynyl containing one or more triple bonds, or C₆-C₂₄ alkyl, all optionally substituted with at least one of F, hydroxy, C₁-C₄ alkoxy, C₁-C₄ alkylthio, C₂-C₅ acyloxy and C₁-C₄ alkyl;

Y is selected from at least one of S, Se, SO₂, SO, O and CH₂; and

Z is a C₁-C₁₀ alkyl group

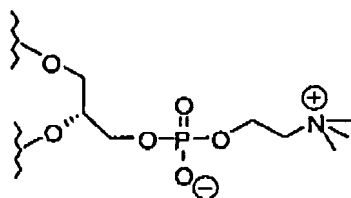
wherein each X, Y and Z is selected independently of each other when p is 2 or 3,

with the proviso that at least one Y is not CH₂.

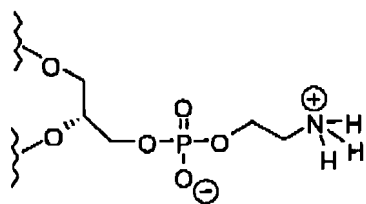
62. (previously presented) The lipid compound according to claim 61, wherein the polar head group is derived from a phospholipid selected from the group consisting of phosphatidylserine (PS), phosphatidylcholine (PC), phosphatidylethanolamine (PE), phosphatidylinositol (PI), phosphatidylglycerol (PG) and phosphatidic acid (PA).

63. (previously presented) The lipid compound according to claim 62, wherein p is 1 or 2.

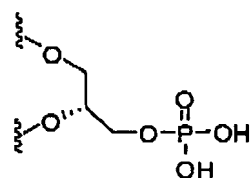
64. (previously presented) The lipid compound according to claim 62, wherein p = 2 and the polar head group is selected from the group consisting of of formula (II) to (VI):



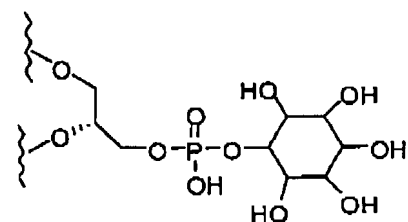
(II)



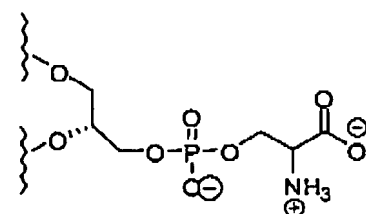
(III)



(IV)

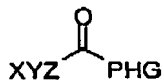


(V)

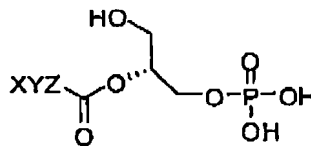
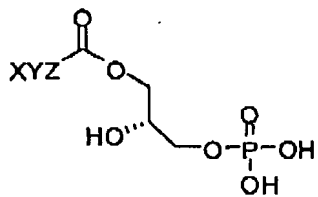
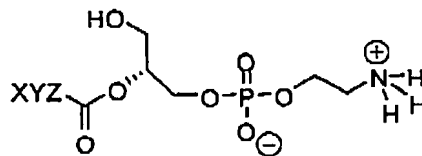
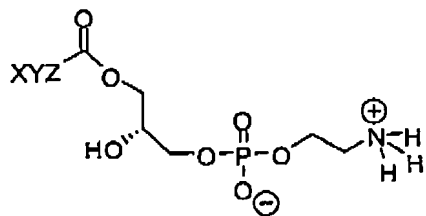
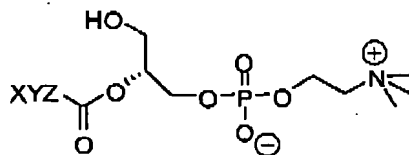
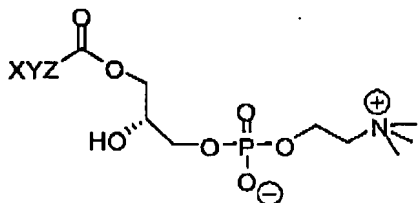


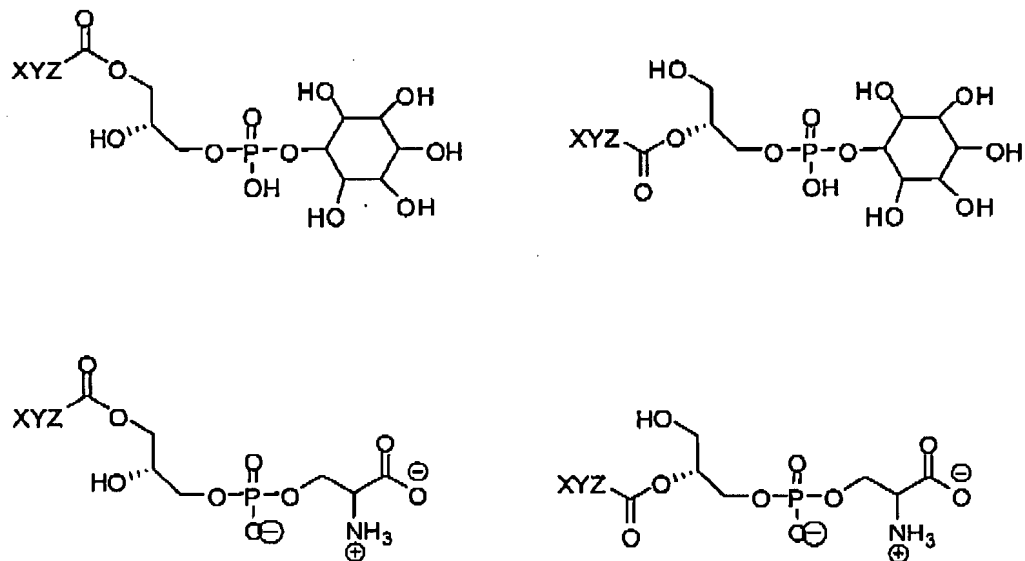
(VI).

65. (previously presented) The lipid compound according to claim 62, wherein $p = 1$, and represented by the following formula



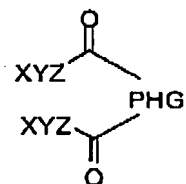
66. (previously presented) The lipid compound according to claim 65, wherein the compound is selected from the group consisting of:



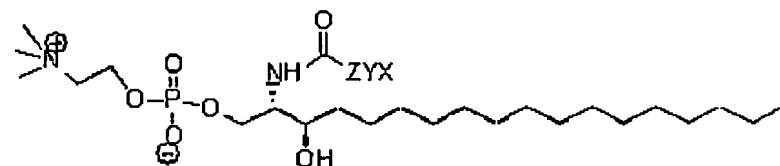


and

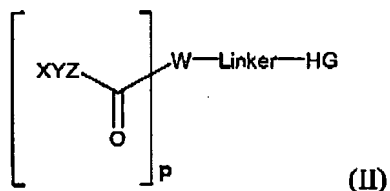
67. (previously presented) The lipid compound according to claim 63, represented by the following formula:



68. (previously presented) The lipid compound according to claim 61, wherein the polar head group is derived from a ceramide represented by a sphingomyelin derivative having the following formula:



69. (previously presented) The lipid compound according to claim 61, wherein the polar head group is -W-Linker-HG represented by the following formula:



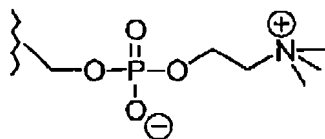
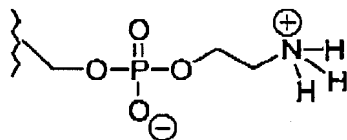
wherein

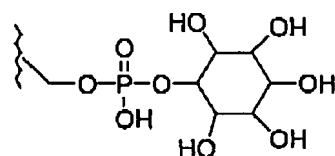
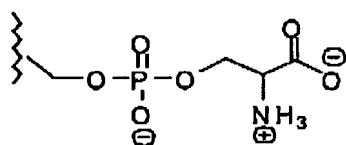
p is 1 or 2;

W is independently selected from the group consisting of S and NR^1 , wherein R^1 is H or a hydrocarbyl group;

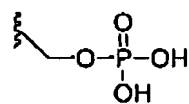
Linker is a hydrocarbon group, that may optionally comprise one or more substituents;

HG (head group) is selected from the group consisting of the following formulas:





and



70. (previously presented) The lipid compound according to claim 69, wherein the Linker is (-CHOH-CH₂-) or (CH₂OH-CH₂-).

71. (previously presented) The lipid compound according to claim 62, wherein X is independently selected from C₆-C₂₄ alkynyl containing one or more triple bonds, wherein at least one triple bond is distanced from the terminal end of the acetylenic hydrocarbyl group by 2, 3 or 7 carbons.

72. (previously presented) The lipid compound according to claim 71, wherein one triple bond is distanced from the terminal end of the acetylenic hydrocarbyl group by 2 carbons.

73. (previously presented) The lipid compound according to claim 62, wherein X is independently selected from C₁₀-C₁₈ alkynyl containing one or more triple bonds, wherein at least one triple bond is distanced from the terminal end of the acetylenic hydrocarbyl group by 2 carbons.

74. (previously presented) The lipid compound according to claim 62, wherein X is independently selected from C₆-C₂₄ alkenyl containing one or more double bonds.

75. (previously presented) The lipid compound according to claim 62, wherein X is independently selected from unsubstituted C₁₀-C₁₈ alkenyl.

76. (previously presented) The lipid compound according to claim 74, wherein at least one double bond is in *cis* configuration.

77. (previously presented) The lipid compound according to claim 74, wherein double bond is in the $\Delta 9$ position.

78. (previously presented) The lipid compound according to claim 62, wherein X is independently selected from C₆-C₂₄ alkyl.

79. (previously presented) The lipid compound according to claim 78, wherein X is independently selected from C₁₀-C₁₈ alkyl.

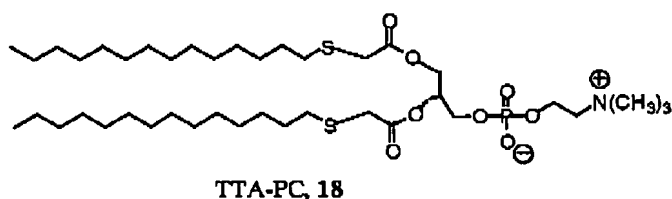
80. (previously presented) The lipid compound according to claim 62, wherein at least one Y is Se, S or O.

81. (previously presented) The lipid compound according to claim 80, wherein at least one Y is S.

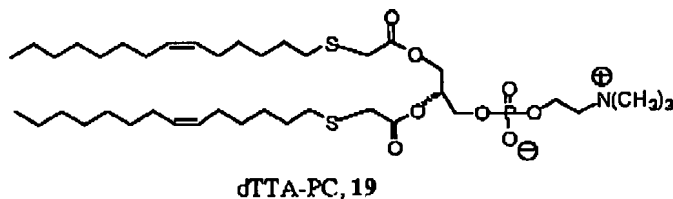
82. (previously presented) The lipid compound according to claim 62, wherein Z is - $(CH_2)_n$ - and n is 1 or 3.

83. (previously presented) The lipid compound according to claim 62, wherein said compound is selected from the group consisting of lipid compounds 18-23:

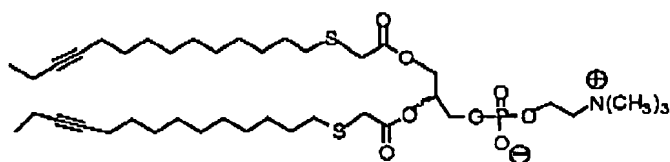
(18)



(19)

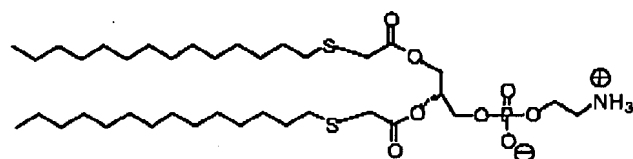


(20)



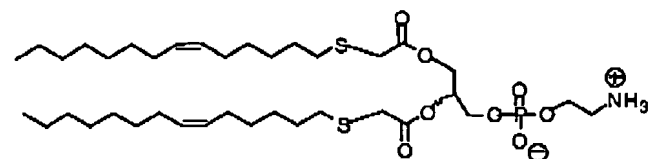
rTTA-PC, 20

(21)



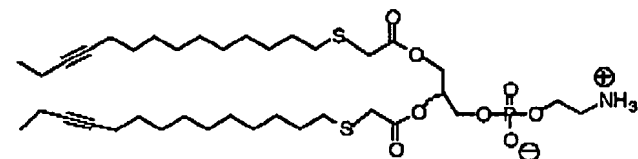
TTA-PE, 21

(22)



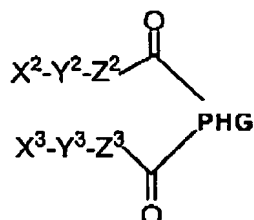
dTTA-PE, 22

(23)



rTTA-PE, 23

84. (previously presented) The lipid compound according to claim 62, represented by the following formula:



wherein

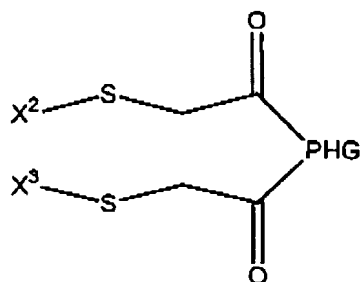
X^2 and X^3 are independently selected from the group consisting of substituted or unsubstituted, C_{10} - C_{18} alkyl, C_{10} - C_{18} alkenyl and C_{10} - C_{18} alkynyl;

Y^2 and Y^3 are independently selected from S, Se, O and CH_2 ;

Z^2 and Z^3 are independently selected from a C_1 - C_6 alkyl group;

with the proviso that at least one Y is not CH_2 .

85. (previously presented) The lipid compound according to claim 62, wherein the compound is of formula

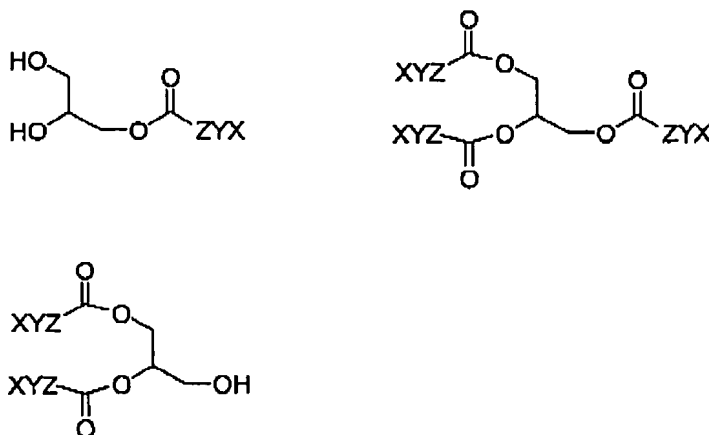


wherein X^2 and X^3 are independently selected from the group consisting of unsubstituted C_{10} - C_{18} alkyl, unsubstituted C_{10} - C_{18} alkenyl and unsubstituted C_{10} - C_{18} alkynyl.

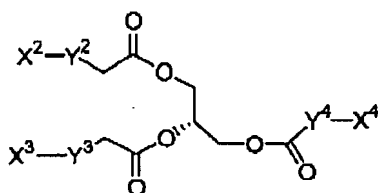
86. (previously presented) The lipid compound according to claim 62, wherein the polar head group is derived from the head group of a phosphatidylcholine (PC) or a phosphatidylethanolamine (PE).

87. (previously presented) The lipid compound according to claim 61, wherein the polar head group (PHG) is derived from a monoacylglycerol, a diacylglycerol or a triacylglycerol.

88. (previously presented) The lipid compound according to claim 87, represented by one of the following formulas:



89. (previously presented) The lipid compound according to claim 87, wherein the compound is of the formula



wherein

Y^2 , Y^3 and Y^4 are independently S, Se, O and CH_2 ; and

X^2 , X^3 and X^4 are independently selected from, substituted or unsubstituted, C_6 - C_{24} alkyl, C_6 - C_{24} alkenyl and C_6 - C_{24} alkynyl,

with the proviso that at least one Y is not CH_2 .

90. (canceled)

91. (canceled)

92. (previously presented) The lipid compound according to claim 87, wherein X^2 , X^3 and X^4 are independently selected from C_6 - C_{24} alkynyl containing one or more triple bonds, wherein at least one triple bond is distanced from the terminal end of the acetylenic hydrocarbyl group by 2, 3 or 7 carbons.

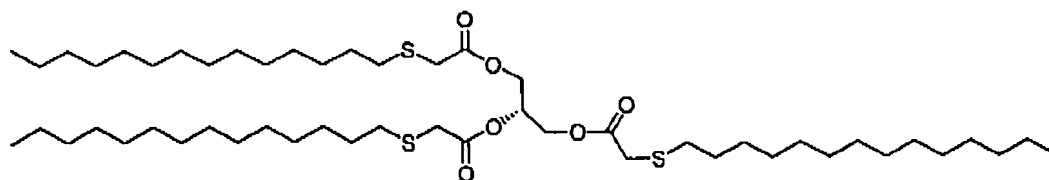
93. (previously presented) The lipid compound according to claim 87, wherein X^2 , X^3 and X^4 are independently selected from C_{10} - C_{18} alkynyl containing one or more triple bonds, wherein at least one triple bond is distanced from the terminal end of the acetylenic hydrocarbyl group by 2 carbons.

94. (previously presented) The lipid compound according to claim 87, wherein X^2 , X^3 and X^4 are independently selected from C_6 - C_{24} alkenyl containing one or more double bonds.

95. (previously presented) The lipid compound according to claim 87, wherein X^2 , X^3 and X^4 are independently selected from unsubstituted C_{10} - C_{18} alkenyl, wherein at least one double bond is placed in position 3 counted from the omega end.

96. (previously presented) The lipid compound according to claim 87, wherein at least one double bond is in *cis* configuration.

97. (previously presented) The lipid compound according to claim 87, wherein the compound is represented by compound 24:



24

98. (previously presented) A combination comprising a liposome and a compound according to claim 61.

99. (previously presented) A method for the production of a lipid compound according to claim 61.

100. (previously presented) A cosmetic formulation comprising a lipid compound according to claim 61.

101. (previously presented) A pharmaceutical composition comprising a compound according to claim 61.

102. (previously presented) A method of treating or preventing a condition selected from syndrome X, obesity or an overweight condition, hypertension, fatty liver, diabetes, hyperglycaemia, hyperinsulinemia, insulin resistance, hyperlipidemia, hypercholesterolemia, hypertriglyceridemia (HTG), and stenosis, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

103. (previously presented) The method according to claim 102, for producing weight loss or a reduction of the fat mass, or for preventing weight gain in a human or non-human animal in need thereof, comprising administering thereto an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

104. (previously presented) A method for the prevention or treatment of inflammatory disorders, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

105. (previously presented) A method of lowering concentration of cholesterol and triglycerides in the blood of mammals and/or inhibiting the oxidative modification of low density lipoprotein, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

106. (previously presented) A method for producing weight loss or a reduction of the fat mass in a human or non-human animal in need thereof, comprising administering thereto an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

107. (previously presented) A method for the modification of the fat distribution and content of animals, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.
108. (previously presented) A method of inhibiting or preventing the growth of tumours, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.
109. (previously presented) A method for the treatment or inhibition of primary and secondary metastatic neoplasms, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.
110. (previously presented) A method for the prevention or treatment of proliferative skin disorders, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.
111. (previously presented) A method for the inhibition of proliferation or induction of differentiation of keratinocytes, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.
112. (previously presented) A method for the prevention or treatment of inflammatory disorders, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.
113. (previously presented) A method for enhancing the endogenous production of interleukin-10 (IL-10) in mammalian cells or tissues, comprising administering to a

subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

114. (previously presented) A method for suppression of the endogenous production of interleukin-2 (IL-2) in mammalian cells or tissues, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

115. (previously presented) A method for the inhibition of proliferation of stimulated peripheral mononuclear cells (PBMC), comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

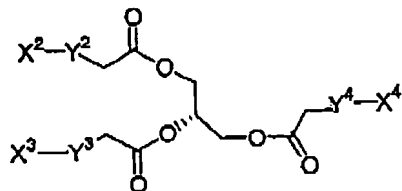
116. (previously presented) The pharmaceutical composition according to claim 101, admixed with a pharmaceutically acceptable carrier, diluent, excipient or adjuvant.

117. (previously presented) A topically administrable pharmaceutical composition according to claim 116.

118. (previously presented) A parenterally administrable pharmaceutical composition according to claim 116.

119. (previously presented) An intravenously administrable pharmaceutical composition according to claim 116.

120. (new) The lipid compound according to claim 87, wherein the compound is of the formula



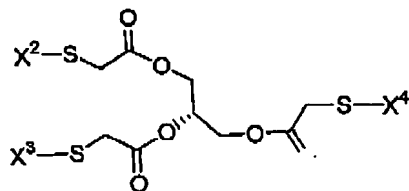
wherein

Y², Y³ and Y⁴ are independently S, O, Se or CH₂; and

X², X³ and X⁴ are independently selected from C₁₀-C₁₈ alkyl, C₁₀-C₁₈ alkenyl and C₁₀-C₁₈ alkynyl,

with the proviso that at least one Y is not CH₂.

121. (new) The lipid compound according to claim 87, wherein the compound is of the formula:



wherein

X², X³ and X⁴ are independently selected from C₁₀-C₁₈ alkyl, C₁₀-C₁₈ alkenyl and C₁₀-C₁₈ alkynyl.